

**REMARKS**

Claims 1, 3, 4, 6-19 and 23-25 are all the claims pending in the application. Claims 21 and 22 have been canceled without prejudice or disclaimer.

**Claim Rejections - 35 U.S.C. § 103**

**Claims 1, 4, 6-9, 13, 15, 18, 19, 21, 22, 24 and 25**

Claims 1, 4, 6-9, 13, 15, 18, 19, 21, 22, 24 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Butterworth (U.S. Patent No. 6,718,853) in view of Stoffels et al. (U.S. Patent No. 4,292,867) and further in view of Kosem (U.S. Patent No. 3,656,377). Claims 21 and 22 have been canceled without prejudice or disclaimer. Applicant respectfully traverses the rejection of the remaining claims.

Claim 1 recites an apparatus for cutting a core which is a cylindrical paper pipe with a thickness appropriate for writing information. The present application recognizes that when a conventional paper pipe is cut, an adhesive applied on the end surface can melt and degrade the ink adhesiveness on the end surface (*see* the paragraph bridging pages 2 and 3 of the Office Action). Accordingly, the apparatus of claim 1 includes a controller which controls the rotational linear velocities of the cutting blade and the core so that the ink adhesive on a cutting surface is preserved. The cited references recognize neither the problem identified by the present application nor the solution of cutting a core by controlling the relative rotational linear velocities as claimed.

The Examiner acknowledges that Butterworth does not teach controlling the rotational linear velocities of the cutting blade and the core to be substantially equal, but asserts that

Stoffels corrects this deficiency of Butterworth. In the response of February 3, 2006, Applicant noted that Stoffels does not teach controlling the rotational linear velocities of a cutting blade and a core to be substantially equal, but instead is directed to the circumferential speeds of a cutting blade 42 and the outer surface of a roll R. Yet, the Examiner maintains the rejection citing two rationales (*see*, page 13, item 2 of the Response to Arguments section of the Office Action). The Examiner's first rationale is that the Stoffels cutting blade 42 is capable of being used to cut a core. The Examiner's second assertion is that the speeds of the Stoffels blades are not used to modify Butterworth, but rather the teaching of the blade rotating at the same speed as the roll to reduce heat. Applicant respectfully submits that neither of these rationale is proper or sufficient.

As for the Examiner's first rationale, (that the Stoffels blade 42 could be used to cut the core as well as the roll), Stoffels does not disclose the cutting blade 42 cutting the core. In asserting that the cutting blade 42 could cut the core, the Examiner appears to mean that the Stoffels device could be modified so that the cutting blade 42 would cut a core. That is, since Stoffels does not actually teach that the cutting blade 42 cuts a core, the device would have to be modified to have the cutting blade cut the core. However, Stoffels specifically teaches against such a modification. Specifically, Stoffels teaches that a separate blade should be used to avoid dulling the blade 42 used to cut the roll (*see* column 1, line 65 to column 2, line 2 and column 5, lines 21-25). Since Stoffels specifically teaches against using cutting blade 42 to cut a core, it is improper for the Examiner to suggest using it to cut a core.

The Examiner's second rationale (that the speeds of the Stoffels blades are not used to modify Butterworth, but rather the teaching of the blade rotating at the same speed as the roll to reduce heat) is also deficient. Stoffels teaches that the knife blade 42 is driven by roll R, thereby rotating the knife blade 42 at the same speed as the roll and producing little heat. Stoffels teaches that this is advantageous because it reduces the tendency of the cut end faces of the tapes or ribbons to fuse (*see* column 2, lines 35-40 and column 6, lines 20-26). However, again, Stoffels is discussing a roll of web material and a blade for cutting the roll. Stoffels does not discuss any advantage to having similar rotational speeds for a core and a blade which cuts the core. Nor does Stoffels discuss any advantages to reducing heat while cutting a core. Thus, Stoffels provides no teaching or suggestion that rotating a core at the same speed as a blade cutting the core would be advantageous. Particularly, since the core material is substantially different than the roll material, there is no indication from Stoffels that fusing would be a problem and thus, no reason to apply the Stoffels teaching.

Furthermore, Stoffels teaches that similar relative speeds of the roll and knife blade 42 are achieved by allowing the roll to drive the knife blade 42. There is no indication that such a method of cutting would be effective for the core.

Accordingly, the Examiner's rationale for modifying Butterworth with Stoffels to reach the claimed invention is improper. Kosem also fails to correct the deficiencies of Butterworth. Specifically, the mere teaching in Kosem that speeds can be controlled is not equivalent to teaching a controller which actually controls rotational speeds in a particular manner.

In view of the above, Applicant submits that claim 1 is allowable over the combination of Butterworth, Stoffels and Kosem. Claim 18 is also allowable at least for reasons similar to claim 1 and that claims 4, 6-9, 13, 15, 18, 19, 21, 22, 24 and 25 are allowable at least by virtue of their dependency from one of claims 1 and 18.

**Claims 10-12, 14 and 17**

Claims 10-12, 14 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Butterworth in view of Stoffels and further in view of Kosem and Sartori (U.S. Patent No. 5,383,380).

Claims 10-12, 14 and 17 depend from claim 1. Even if the Examiner's assertions regarding Sartori were correct, Sartori still would not correct the above-noted deficiencies of the combination of Butterworth, Stoffels and Kosem with respect to claim 1. Claims 10-12, 14 and 17 are therefore allowable at least by virtue of their dependency.

**Claims 3 and 23**

Claims 3 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Butterworth in view of Elliot.

Claim 3 depends from claim 1 and claim 23 depends from claim 18. Even if the Examiner's assertions regarding Elliot were correct, Elliot still would not correct the above-noted deficiencies of the combination of Butterworth, Stoffels and Kosem. Accordingly, claims 3 and 23 are therefore allowable at least by virtue of their respective dependencies.

Furthermore, the Examiner's motivation for modifying Butterworth with Elliot as suggested by the Examiner continues to be deficient. Particularly, the Examiner asserts that

because Elliot teaches a single deburring device which could move in opposite directions, that it would have been obvious to have two deburring devices located on opposite ends rotating in opposite directions. The Examiner still fails to provide any motivation in the prior art for such a modification. The mere teaching that different directions of rotation are possible in a deburring device does not render obvious the particular configuration of the claimed invention at least because it fails to suggest the benefits of such a configuration. Accordingly, claims 3 and 23 are also allowable at least because one of ordinary skill in the art would not have modified

**Claim 16**

Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Butterworth in view of Scott. Applicant respectfully traverses.

Claim 16 depends from claim 1. Scott fails to correct the above-noted deficiencies of Butterworth with respect to claim 1 and, therefore, claim 16 is allowable at least by virtue of its dependency. Furthermore, the Examiner's rejection of claim 16 continues to be improper at least for the reasons set forth in the Amendment of February 3, 2006. Specifically, Butterworth and Scott teach two different methods for accommodating a cutting blade which are incompatible. While Butterworth teaches a recess to receive the blade, Scott teaches soft sections 13. Since Scott teaches a different method for accommodating a cutting blade, it would not be used to create a recess in Butterworth.

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

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Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

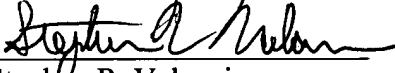
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**23373**

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